**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of | ) | |
| Provision of Improved | ) | CC Docket No. 98-67 |
| Telecommunications Relay Service | ) | |
| | ) | |

Comments of:

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Thank you for this opportunity to comment on Internet relay services. I am a hard of hearing individual who uses Relay to a great advantage but I also use Internet and email for some of my communication needs.

In this proceeding, the Consumer Information Bureau of the FCC wrote:

**Benefits**

*WorldCom states that its IP Relay service provides customers with many benefits, including the ability to make multiple calls simultaneously, make conference calls, and view websites while calling. Eventually, according to WorldCom, IP Relay will allow computer-to-TTY calls without intervention by a CA, and will provide additional features, such as graphics, text, and video. Some of these services may be software-based, and made available through free computer downloads, without a need for new hardware. We ask that commenters address:*
*1. the desirability of these and other potential benefits of IP Relay.*
*2. We also ask commenters to alert us to any potential disadvantages of handling TRS calls via IP Relay."*

I have long wished for a service like IP-Relay. In my conception, each traditional Relay provider, such as Georgia Relay, would have a web page with instructions on how to contact it over Internet. That Relay provider would continue to offer Relay services to people who do not have a computer, and also with the new capability, offer IP Relay. One way to reach the Relay provider would be through a facility like ICQ, which is an “Instant Messenger” type of service. The Relay service would appear on my “Contacts List”just like other contacts, except it would be on-line almost always. I would initiate a chat request to the Relay provider and when we entered the chat I would ask for a certain telephone number to be dialed and thereafter the operation would be like traditional Relay. The present version of IP-Relay comes close to what I envisioned. I realize the present version is just a starting point, centralized in one service provider at one location.

Advantages of this kind of operation:

I would not need a traditional TTY except when someone calls me using a TTY. In the future, it

may be possible to eliminate that need also. This would free up my available desk space and eliminate the expense of maintaining a separate piece of equipment. Many hard of hearing people have a great deal of difficulty in using a voice phone and should be using Relay services, but they don't because it is too much trouble and they don't want to obtain a TTY. Many of them already have computers and access to the Internet, so IP-Relay would encourage them to use Relay.

I am more familiar with the keyboard on my computer and it has a better touch.

The computer has a larger display.

I can change the font and color of the text.

Text messages can be saved easily.

Communication is much faster.

WorldCom suggests simultaneous multiple calls as a benefit. I don't think I would use that feature since after becoming hard of hearing, I must concentrate on just one conversation at a time. Perhaps I could if the conversations were in text as they would be over IP-Relay in this context. Conference calls would be an important feature since one person speaks at a time and they normally will be speaking on the same subject.

Viewing websites is another important feature. If I have only one phone line, I can't do that with a traditional TTY. Many people have computers and websites have become a valuable resource. I may be talking to someone, my customer, for example, and we can both be looking at the same website, my website, and I could be explaining an important feature of my product or service.

The ability to converse between a computer and a TTY has long been on most of our wish lists. It is possible today if the TTY has the ASCII feature, but many TTY's do not have that feature and those that do have a lot of trouble connecting to a personal computer.

The most promising feature of IP-Relay may be in a 2LVCO (Two line Voice Carry Over) type of operation. In this mode, normally two lines are required. One line is for text and the user connects to Relay with a TTY or computer. The other line is for voice and the voice line has three way calling whereby the user, the called party, and the Relay operator are conferenced together. The Relay operator just listens and types what the called party says to the user's text device. This provides a more natural flow of conversation. I attempt to converse with my party normally, and he or she may not even know Relay is listening and typing to me. I may understand 70% of what my party says and just use the text to fill in for missed words. IP-Relay may make this possible with just one phone line. In this mode, my voice would be digitized and sent to the Relay center. At the Relay center, my voice would be converted to analog and the Relay operator would hear it and my called party would hear it. Likewise, my called party would respond with voice which would be in analog mode to the Relay operator, but sent to me in digital mode and my PC would convert it back to analog. These digitized voice signals could be interspersed and sent as packets along with text that is displayed on my computer, thereby providing a 2LVCO type of operation on just one phone line.

Even without developing a system to provide a 2LVCO operation on just one line, IP-Relay would greatly enhance regular 2LVCO. For example, many places have Internet connections

established through a LAN, cable modem, DSL, etc. and have an available voice line nearby. A person could even use a cell phone as the voice line if a phone were not available. This is the method I use for 2LVCO and currently I use my phone line to connect with a traditional Relay service through dial up facilities, using a terminal emulator on my PC as the text device and my cell phone as the voice device. It would be so much easier if I could connect with Relay over the Internet for this operation, and I would be relieved to find I could do the same operation at many places where Internet facilities are provided, such as Internet Cafes, libraries, business offices, and places of public accommodation. All I would need to carry is my cell phone.

A significant improvement to 2LVCO operation at both traditional Relay Centers and a IP-Relay is to remove the requirement for the user's phone to have three way calling. It would save the user a small amount of money, but more importantly, it would make 2LVCO more readily available. When away from home, it is difficult to find phones that have three way calling. The Relay center could be the place where three way calling is required, and I suspect that feature is already on a lot of the phones in use at Relay Centers. In this mode of operation, I would first connect with IP-Relay (or a traditional Relay Center) and request 2LVCO. I would give the CA my voice line number and the number of my party. The CA would connect us in a three way call.

Performing 2LVCO for an incoming call is more difficult and for this three way calling at the user's phone may be required. I, myself, would just be in call back mode for voice calls I could not handle by myself, and I would call the person back through 2LVCO and Relay.

Voice mail:

The IP-Relay service could also be a voice mail service. Many voice mail services exist on the Internet today, so IP-Relay could form a partnership with one or create one themselves. I would attempt to retrieve my voice mail in the conventional way, and if I could not understand the message, IP-Relay could translate it to me as text. Alternately, I could use my PC as my voice mail device and send the digitized file to IP-Relay when I need help. This would be much faster and more reliable than traditional Relay.

**Cost Recovery**

*WorldCom has requested that the Commission require reimbursement of IP Relay from the interstate TRS Fund for all calls, whether interstate or intrastate. We note that WorldCom states that there is no way of determining the origin of IP Relay calls, because Internet addresses have no geographical correlates. Is this an appropriate way to reimburse IP Relay providers? Is there a mechanism in place, or can a mechanism be developed, by which a provider can determine the geographic location of the originator of a call? We seek information on the best means of recovering the costs associated with IP Relay. Is there an effective method to estimate the percentage of calls associated with intrastate versus interstate usage, and divide reimbursement accordingly? If such a method exists, would it be utilized on a call by call basis, or would it employ a formula that divides the calls proportionally? Should computer-to-TTY calls without intervention by a CA be considered reimbursable from the TRS fund?"*

Since this is an Internet service, it seems that long distance charges can be minimized using methods that providers of IP-Phone use. If that is feasible, the geographic location becomes unimportant and the major consideration is to fund the Relay service itself. I support using the Interstate Relay fund or other fund deemed appropriate by the FCC. If long distance charges do have to be factored in, then one way may be to create a profile for a user that states the location.

The start up WEB page for IP-Relay could also have a location question and “cookies” could be used to keep the person relatively honest.

I do strongly support the proposal to fully fund a computer to TTY bridge. There would be start up costs involved but day to day operation should be small. There are many people who have only a TTY and will never get a computer. I need to speak with these people from time to time and while I have a TTY at home, I sometimes find myself away from home without the TTY. I could call a TTY user through Relay, but I need Relay services myself. If I call a TTY user through Relay, I am assumed to be a hearing person and the Relay operator talks to me like I am a fully hearing person. It would be much easier for me to use my computer to communicate with a TTY and not go through Relay and have lower cost.

**Minimum Standards**

Minimum standards should be applied to IP-Relay the same as with traditional Relay insofar as it is technically possible. Typing speed could be even greater since the CA is not limited by the Baudot transmission and typing speed needs to be greater to fully realize the potential of IP-Relay, especially for conference calls.

Long distance carrier choice can be a profile question or it could be entered on the web page
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Emergency calls made through IP Relay should be in place. One never knows when an emergency will occur and a user may have totally converted all her or his calls to IP-Relay. A user may not even have equipment for traditional Relay calls. While this may be a difficult technical problem to know automatically where a person is, I envision at least the opportunity for a user to fill out a canned emergency message stating the normal location, and having a mechanism to send that message with minimal effort.

**Incoming Voice Calls**

Internet Relay needs to also provide the ability for voice callers to connect to an Internet user. This will be difficult to accomplish when the Internet user is not on-line, but one way may be to automatically generate a message that will flow to the Internet user when on-line status is established. Another way may be to generate an unique caller id that will appear on the user’s caller id device that indicates an IP-Relay call was attempted and a call back number is provided..

**Conclusion**

I see IP-Relay as a great boon to deaf and hard of hearing people, as well as to other disability groups. It will make Relay Service available to many more people and it will foster new hardware and software developments.

Thank you for your consideration of these comments.

Sincerely,

Ronald H. Vickery